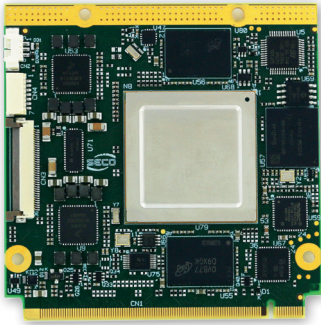# Qseven®

MAIA

Qseven® Rel. 2.1 compliant module with NXP i.MX 8 Applications Processors

Take advantage of the wide scalability offered by Qseven® form factor and the i.MX 8 family
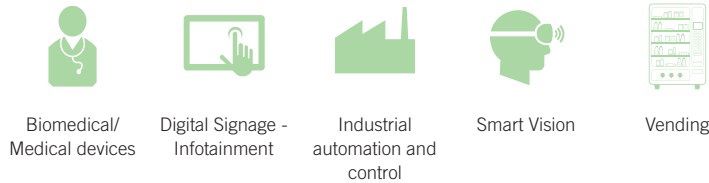
early access

AI-ENABLED WITH
((CLEA

HIGHLIGHTS

CPU	NXP i.MX 8 Applications Processors	**CONNECTIVITY**	1x USB 3.0; PCI-e x1 Gen3; CSI camera connector; Boot select signal
GRAPHICS	Integrated GPU, supports 2 independent displays	**MEMORY**	soldered down LPDDR4-3200 memory

Available in Industrial Temperature Range

QSEVEN

SGeT — STANDARDIZATION GROUP FOR EMBEDDED TECHNOLOGIES

GOLD PARTNER NXP

Linux · yocto PROJECT · ANDROID

MAIN FIELDS OF APPLICATION

Biomedical/ Medical devices	Digital Signage - Infotainment	Industrial automation and control	Smart Vision	Vending

FEATURES

Processor	NXP i.MX 8 Family: • **i.MX 8QuadMax** - 2x Cortex®-A72 cores @1.6GHz + 4x Cortex®-A53 cores @1.2GHz + 2x Cortex®-M4F cores @264MHz • **i.MX 8QuadPlus** - 1x Cortex®-A72 cores @1.6GHz + 4x Cortex®-A53 cores @1.2GHz + 2x Cortex®-M4F cores @264MHz	**Audio**	I2S Audio Interface	
		Serial Ports	1x UART Tx/Rx/RTS/CTS 1x CAN Bus (TTL level)	
Memory	Soldered Down LPDDR4-3200 memory, 64-bit interface , up to 8GB	**Other Interfaces**	CSI camera connector 2x I2C Bus SPI interface 8 x GPI/Os Boot select signal Power Management Signals Watchdog	
Graphics	Integrated Graphics Processing Unit, supports 2 independent displays. Embedded VPU, supports HW decoding of HEVC/H.265, AVC/H.264, MPEG-2, VC-1, RV9, VP8, H.263 and MPEG4 part, HW encoding of AVC/H.264 Supports OpenGL ES 3.1, Open CL 1.2, OpenGL 3.x, DirectX 11			
		Power Supply	+5V_{DC} ±5% +3.3V_RTC	
Video Interfaces	HDMI 2.0a / DP 1.3 or eDP 1.4 interface, supporting HDCP 2.2 Dual Channel or 2 x Single Channel 18- / 24-bit LVDS interface (1 x Single Channel in case of eDP interface available)	**Operating System**	Linux Yocto Android	
Video Resolution	HDMI / DP / eDP: resolution up to 4096x2160 @ 60Hz LVDS: resolution up to 1920x1080 @ 60Hz	**Operating Temperature***	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)	
Mass Storage	1x SATA Gen3 interface eMMC 5.1 drive soldered on-board SD 4-bit interface QSPI Flash soldered-on-board	**Dimensions**	70 x 70 mm (2.76" x 2.76")	
Networking	1 x Gigabit Ethernet interface			
USB	4 x USB 2.0 Host Ports 1 x USB 3.0 Host Port 1 x USB 2.0 OTG port			
PCI-e	2x PCI-e x1 Gen3 ports			

Power Supply: $+5V_{DC}$ ±5%, +3.3V_RTC

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

SECO

BLOCK DIAGRAM

QSPI Flash	
LPDDR4 Memory	
CSI Camera connector	
eMMC Drive	
NXP i.MX8 Application processor	
Embedded Controller	
1 x Gigabit Ethernet Transceiver	
USB HSIC Hub	
Low Power RTC	
Power section	

- 1x SATA
- 2x PCI-e x1
- Power Mgmt
- Boot Select Signals
- Watchdog
- GbEthernet
- 4x USB 2.0
- 1x USB 3.0
- 1x USB 2.0 OTG
- 1x UART
- GP & PM I2C
- CAN
- SD
- I2S
- 8 GPIO
- LVDS
- HDMI/DP or eDP — **FACTORY ALTERNATIVES**
- SPI
- +3.3V_RTC
- +5V_RUN, +5V_ALW

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